



Utah Bureau of Emergency Medical Services and Preparedness

Strategic Plan

January 1, 2015—December 31, 2019



UTAH DEPARTMENT OF
HEALTH

Bureau of Emergency Medical Services and Preparedness

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Emergency Medical Services and Preparedness in Utah

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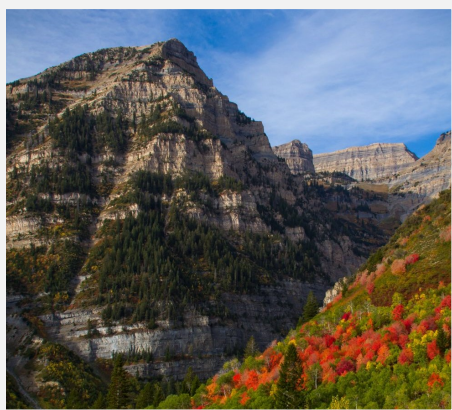
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Overview

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Emergency Medical Services and Preparedness in Utah



PLAN

“Determine *What* you want and *Why* you want it. Once you understand what’s important, you can utilize your passions and achieve anything.”

- Brooke Griffin

Purpose of the Strategic Plan

This document outlines a five-year strategic plan for the Utah Department of Health’s Bureau of Emergency Medical Services and Preparedness (BEMSP) and its emergency medical services and preparedness partners across the State of Utah. As BEMSP works together with these partners to accomplish the goals and objectives outlined in the plan, Utah will be better prepared for emergencies and will be able to provide improved emergency medical care for children and adults, thus reducing both injuries and deaths in Utah.

Strategic Plan Development

The strategic plan was developed by BEMSP in partnership with these committees:

- State Emergency Medical Services (EMS) Committee,
- Trauma Systems Advisory Committee (TSAC),
- Emergency Medical Services for Children (EMSC) Advisory Committee, and
- Utah Public Health Preparedness Senior Advisory Committee.

These committees conducted assessments of current strengths and gaps in Utah’s EMS, trauma, and preparedness systems to determine key focus areas for the next five years.

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Emergency Medical Services and Preparedness in Utah

EMS System

The BEMSP is the lead agency for Utah's Emergency Medical Services (EMS) System. The BEMSP is housed within the Utah Department of Health (UDOH) Division of Family Health and Preparedness. To ensure constituent input, the BEMSP has three statutory committees, three subcommittees, and various task forces. The mission of the BEMSP is to promote a statewide system of emergency and trauma care to reduce morbidity and mortality through prevention, planning, awareness, and intervention. The BEMSP vision statement is, "A leadership team functioning as a resource and providing assurance of a quality emergency medical system in the State of Utah." The core values of the BEMSP are: "Protection of the Public, Education, Active Listening, Cost Effectiveness, Trust, Assurance, Flexibility, Responsive, Service, Honesty, Support, Leadership, Communications, Integrity, Teamwork, Quality, Customer Focus, Open to the Public, and Respect."

Within the Utah EMS System, there are a total of 93 licensed ground ambulance and paramedic rescue agencies and 54 designated quick response units providing various levels of prehospital care. The licensure level of a prehospital ambulance EMS service is determined by local officials of the community being served. According to Utah EMS Systems Act, local governments are the key to establishing cost, quality, and access goals for the ground and paramedic functions that serve their areas.

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Emergency Medical Services and Preparedness in Utah

In 1986, the Utah State Legislature created a funding mechanism to establish an EMS grants program to help offset the lack of tax-based funding and federal aid for the improvement of the EMS system throughout the state. This program is funded by a dedicated source (criminal fines and forfeitures) which establishes grants for the improvement of the statewide EMS system. For fiscal years 2012-2014, approximately one million dollars was distributed to EMS agencies annually. These grants enabled EMS agencies to provide quality patient care by funding training and continuing medical education, along with purchasing modern communication and medical equipment.

Utah's low population density of 35.3 persons per square mile makes it the 10th most rural state in the U.S. Accordingly, a large percentage (33.2%) of EMS providers are based in rural areas where there are fewer paramedics than would be found in urban areas, and thus more limited access to advanced prehospital care. In Utah, paramedics comprise 26% of EMS providers in urban areas and only 14% of rural EMS providers.

Whether in rural Utah or along the Wasatch Front, EMS providers meet the same training, certification and recertification standards, and stand ready to care for victims of injury or illness. Licensed ambulance providers throughout the state are required to have the same personnel, equipment, and operational standards. Through aid agreements, local disaster plans, and standing orders, these licensed ambulance providers are in a continual state of readiness to serve the public. They are more skilled and better prepared to deal with weapons of mass destruction and mass casualties that result from natural and human-caused disasters. The certified personnel include part-time paid, full-time paid, and volunteer. A large majority of the rural areas are covered by an all-volunteer force. Each licensed ambulance service also has a certified medical director to provide medical control.

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Emergency Medical Services and Preparedness in Utah

Some rural services are finding it difficult to recruit and retain personnel sufficient to maintain services. Continuous turnover of staff hampers the ability to maintain the skill level of the service. This problem is most prominent in sub-frontier counties.

There are six levels of certification for EMS personnel: Emergency Medical Dispatch, Emergency Medical Responder (EMR), EMT, A-EMT, EMT-Intermediate Advanced, and Paramedic. Each level has a specific scope of practice with required hours of training.

The following are currently certified EMS personnel as of February 2015:

Emergency Medical Dispatcher — 705

EMR — 143

EMT — 5,398

Advanced EMT — 3,402

EMT-Intermediate Advanced — 188

Paramedic — 1,824

Medical Director — 76



RURAL UTAH

“Rural EMS takes a team, some may think we don't have it together, but together we have it all.”

- Jeri Johnson, Wayne Co. EMS
Director

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Emergency Medical Services and Preparedness in Utah

Trauma System

The EMS Systems Act, with funding through the EMS grants program, supports the development and maintenance of the statewide trauma system in Utah. A core component of an effective trauma system is the existence of a statewide trauma registry. Beginning in 2001, Statute and Administrative Rule began requiring all acute care hospitals in the State of Utah to submit data to the Utah Department of Health (UDOH) for the statewide trauma registry. Currently, 43 acute care hospitals submit data on a quarterly basis to the state. On average, 9,000 patients meet trauma registry inclusion criteria each year, totaling over 50,000 records in the registry at this time. Last year, the inclusion criteria changed in order to comply with the National Trauma Database Standard.



PERFORMANCE IMPROVEMENT

"Hospitals and EMS agencies cannot sit back and rest on past achievements. Health care is a constantly changing environment which brings new challenges, new treatments and regulatory compliance demands that must be followed. We are now believers that Performance Improvement actually does make a difference."

- Sue Day, RN, BSN, MA

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Emergency Medical Services and Preparedness in Utah

Of the 45 acute care hospitals in Utah, 22 have voluntarily met the extensive criteria required to be designated as trauma centers by the UDOH. They are:

| | |
|-------------------------------------|-----------|
| Intermountain Medical Center | Level I |
| Primary Children's Hospital | Level I |
| University of Utah Hospital | Level I |
| McKay Dee Hospital | Level II |
| Ogden Regional Medical Center | Level II |
| Utah Valley Regional Medical Center | Level II |
| Dixie Regional Medical Center | Level III |
| Lakeview Hospital | Level III |
| Logan Regional Hospital | Level III |
| St. Mark's Hospital | Level III |
| American Fork Hospital | Level IV |
| Bear River Valley Hospital | Level IV |
| Brigham City Community Hospital | Level IV |
| Cache Valley Specialty Hospital | Level IV |
| Moab Regional Hospital | Level IV |
| Mountain View Hospital | Level IV |
| Park City Medical Center | Level IV |
| Sanpete Valley Hospital | Level IV |
| Timpanogos Regional Medical Center | Level IV |
| Uintah Basin Medical Center | Level IV |
| Delta Community Medical Center | Level V |
| Fillmore Community Medical Center | Level V |

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Emergency Medical Services and Preparedness in Utah

Resource Hospitals

Hospitals play a vital role in the Utah EMS System by providing definitive care for patients needing specialty care (pediatrics, trauma, stroke, ST Segment Myocardial Infarction [STEMI]) and routinely providing emergency medical care through their emergency departments. Within the statewide EMS system, the EMS Committee has designated all acute care hospitals and the VA hospital as resource hospitals (with the exception of designated trauma centers). Utah Administrative Code R426-14-300 Minimum Licensure Requirements outlines the availability of online medical direction for EMS agencies. The designated resource hospitals are committed to providing direct voice communication to EMS providers on the scene and as they transport patients to their facility. The hospitals are also responsible for integrating EMS providers into quality assurance and educational activities.

Time Sensitive Emergencies

Heart disease, stroke, cancer, and trauma are major causes of morbidity and mortality worldwide, in the United States, and in Utah. Of these four conditions, three are classified as time-sensitive emergencies and outcomes are strongly associated with the amount of time taken for individuals to receive definitive care. The BEMSP has developed systems of care to address each of these time-sensitive emergencies with the goal of reducing the morbidity, mortality, and disability associated with heart attack, stroke, and trauma. Among the 45 acute care hospitals in Utah, 22 are designated trauma centers which systematically resuscitate, stabilize, and transfer appropriate victims of trauma to facilities capable of providing definitive care for their injuries. In addition, there are 22 Stroke Receiving Facilities capable of diagnosing, treating, and transferring victims of ischemic stroke to one of nine Primary Stroke Centers following systematic guidelines developed by experts in the care of stroke patients. Finally, heart attack patients experiencing a STEMI can be diagnosed in the field and transported directly to a cath lab for interventional treatment of the clot causing the heart attack. These systems of care for time-sensitive conditions are successful because of the partnership of EMS, hospital staff, and physicians using best practices.

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Emergency Medical Services and Preparedness in Utah

EMS for Children Program

Since 1993, Utah Emergency Medical Services for Children (EMSC) has existed as a public/private partnership between the UDOH and Primary Children's Hospital. Utah EMSC's mission is to reduce pediatric mortality and morbidity from severe illness or trauma. This will be accomplished by working in partnership to promote and support injury prevention, deliver culturally competent training, and conduct performance improvement activities for communities and health care providers.

In 1994, Utah became the first state in the nation to pass legislation to establish and fund an EMS for Children program. To accomplish that mission, the Utah EMS for Children Program partners with internal programs including the Violence and Injury Prevention Program and the Bureau for Children with Special Health Care Needs, as well as external organizations such as Utah Highway Safety, SAFE KIDS Utah, the Utah State Office of Education, Child Fatality Review Committee, and air ambulances and EMS agencies, as well as pediatric specialists throughout the state.



PEDIATRIC VITALS

"Taking vitals on pediatric patients is not just important, it is absolutely essential for good prehospital care. Vital signs obtained in the field help to guide the care in the hospital."

- Peter P. Taillac, M.D.

EMS for Children continues to fill a critical role in Utah through educating prehospital providers and developing resources and systems to improve the care of pediatric patients in the state.

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Emergency Medical Services and Preparedness in Utah

Preparedness Program

Efforts to prepare for emergencies affecting the public health and health care systems are administered through the BEMSP in the Utah Department of Health. The BEMSP works with local public health departments, Utah health care system partners, other state health programs, state agencies, EMS agencies, tribal health systems, and other partners to guide and assist the public health and health care system's preparedness efforts. Emergency Support Function #8 delineates the oversight authority of the Utah Department of Health for managing the emergency health care and public health response capabilities in the state during a disaster, pandemic, or other emergency. The goal of public health and health care preparedness is to assure a well-coordinated, equipped, and tiered response to public health and health care emergencies and disasters in Utah. The BEMSP works to ensure the state is well prepared to respond by addressing the ASPR Hospital Preparedness Program (HPP) and the CDC Public Health Emergency Preparedness (PHEP) capabilities which include Community and Health Care System Preparedness, Community and Health Care System Recovery,



PREPARE

"We wanted to test the system and make sure that we could carry it all the way to the end. We think what this has shown is that we're really prepared."

- Andrew Pavia, M.D.
Chief, Division of Pediatrics and
Infectious Diseases
Primary Children's Hospital

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Emergency Medical Services and Preparedness in Utah

Emergency Operations Coordination, Emergency Public Information and Warning, Fatality Management, Information Sharing, Mass Care, Medical Countermeasure Dispensing, Medical Materiel Management and Distribution, Medical Surge, Non-Pharmaceutical Interventions, Public Health Laboratory Testing, Public Health Surveillance and Epidemiological Investigation, Responder Safety and Health, and Volunteer Management.

A large majority of grant funds is allocated to facilities and partner agencies outside BEMSP, which ultimately strengthens the resiliency of Utah's public health and health care system.



RESPOND

"It's important we're always prepared in the hospital setting. Activating our emergency plan helps us uncover potential weaknesses and allows us to constantly strengthen our processes. In our line of work, we can't afford to be unprepared."

- Scott Youngquist, M.D.,
Emergency Medicine
University of Utah Hospital

The mission of the EMS system is to promote a statewide system of emergency and trauma care to reduce morbidity and mortality through prevention, planning, awareness, and intervention.



Goal 1: Enhance EMS system to improve providers' ability to respond.

- ✦ Objective 1.1 By December 2016, conduct an assessment of EMS agencies and hospitals for existing injury prevention programs and resources.
- Objective 1.2 By December 2017, establish an interdisciplinary preparedness task force.
- ✦ Objective 1.3 By December 2018, rural EMS agencies will coordinate cooperative purchasing agreements for reduced prices on equipment, supplies, and medications.

Goal 2: Ensure an adequate workforce of EMS providers to meet public needs.

- Objective 2.1 Between 2015 and 2019, monitor the emerging role of EMS in mobile integrated community health.
- Objective 2.2 By December 2016, implement national education standards.
- ✦ Objective 2.3 By December 2019, integrate with at least four existing education networks for sharing CME training materials.

Goal 3: Ensure designated EMS dispatch centers utilize certified personnel and approved pre-arrival instructions.

- Objective 3.1 By December 2016, assess the current medical dispatch systems across the state.
- Objective 3.2 By December 2017, modify an existing curriculum for dispatch certification standards.
- Objective 3.3 By December 2019, standardize statewide emergency medical dispatch protocols.

Goal 4: Utilize prehospital data to identify gaps in service delivery.

- Objective 4.1 By December 2016, change administrative rule to require submission of patient care reports (PCRs) within seven days of incident.
- ✦ Objective 4.2 By December 2016, establish 10 prehospital performance measures at the state, regional and local level.
- ✦ Objective 4.3 By December 2018, 50% of Utah hospitals will provide outcome data to supporting EMS agencies based on severity criteria.

✦ Indicates objectives to be accomplished at a regional level.

The Utah State Trauma System seeks to:

- promote optimal care for trauma patients;
- reduce unnecessary death and disability from trauma and emergency illness;
- inform health care providers about trauma system capabilities;
- encourage an efficient and effective continuum of patient care, including prevention, prehospital care, hospital care, and rehabilitative care; and
- minimize the overall cost of trauma care.



Trauma System

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Goals and Objectives

Goal 1: Ensure ill or injured persons are transported to the appropriate facility to meet needs and improve outcomes.

- Objective 1.1 By December 2015, ensure monthly data compliance by 100% of licensed EMS providers.
- Objective 1.2 By December 2016, change administrative rule for data submission by EMS providers to seven days.

Goal 2: Increase communication and awareness of trauma system issues among partners to improve patient care delivered by trauma centers.

- Objective 2.1 By December 2015, invite violence and injury prevention experts/staff and rehabilitation facility representatives to participate on the Trauma System Advisory Committee.
- ✦ Objective 2.2 By December 2017, ensure compliance from resource hospitals and trauma centers in providing education, performance improvement, and feedback between hospitals and EMS providers.

Goal 3: Utilize and establish best practices to improve trauma patient outcomes.

- Objective 3.1 By December 2015, implement new American College of Surgeons criteria for trauma center designation.
- Objective 3.2 By December 2016, establish system benchmarks and audit filters.
- Objective 3.3 By December 2016, update state performance improvement guide to include a regional structure and process.
- ✦ Objective 3.4 By December 2016, develop a schedule to create performance improvement meetings which include Trauma Medical Directors, Trauma Program Managers, EMS Medical Directors, and EMS Leadership from each region.
- Objective 3.5 By December 2017, establish criteria for identifying needed trauma resources.
- Objective 3.6 By December 2018, assess Trauma Field Triage Guideline.

Goal 4: Increase trauma system public information and provider education.

- ✦ Objective 4.1 By December 2015, distribute triage criteria to EMS agencies and hospitals through posters and fliers.
- ✦ Objective 4.2 By December 2016, conduct an analysis of existing data to evaluate the effectiveness of triage criteria at state and regional levels.
- Objective 4.3 By March 2017, develop the story/history of the trauma system and share with the public, EMS, hospitals, and policymakers.

✦ Indicates objectives to be accomplished at a regional level.

The mission of the Utah EMS for Children Program is to reduce pediatric mortality and morbidity from severe illness or trauma.



EMS for Children

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Goals and Objectives

Goal 1: Increase the number of EMS for Children-trained professionals to ensure children receive the best emergency care possible.

- Objective 1.1 Between 2015 and 2019, distribute at least 45 EMS-C educational newsletters to EMS and hospital personnel.
- Objective 1.2 By December 2018, increase by 10 the number of EMS agencies certified to train their own personnel.

Goal 2: Utilize assessment data to improve pediatric readiness in Utah.

- ✧ Objective 2.1 By December 2016, analyze and disseminate hospital and EMS assessment data on a regional level.
- ✧ Objective 2.2 By December 2019, work with hospitals and EMS to make a minimum of one improvement per region based on assessment data.

Goal 3: Reduce duplication of services by supporting regional coordination between EMS and hospital providers.

- ✧ Objective 3.1 By December 2015, implement regionalization of Pediatric Education for Prehospital Professionals classes to ensure adequate regional teaching opportunities for instructors and certification opportunities for EMS personnel.
- Objective 3.2 Between 2015 and 2019, bring coordinators together annually to share ideas and offer or conduct training for their communities.
- ✧ Objective 3.3 By December 2019, develop regional preparedness planning and drills.

Goal 4: Ensure medical direction for the pediatric patient is appropriate and consistent with state and national best practices to improve patient outcomes.

- Objective 4.1 By December 2016, distribute updated statewide pediatric protocol books.
- Objective 4.2 By December 2018, develop protocols into an updatable and searchable format for mobile devices.

Goal 5: Improve EMS level of preparedness for pediatric emergencies.

- Objective 5.1 Between 2015 and 2019, maintain training and supply rotation plan to stock pediatric trailers and ensure training of pediatric response team members.
- Objective 5.2 By December 2016, develop standard operating procedures for EMS for Children staff.
- Objective 5.3 By December 2017, expand reach of CHIRP database through promotional materials and link with dispatch.
- Objective 5.4 By December 2019, work with partners to develop family reunification plan.

✧ Indicates objectives to be accomplished at a regional level.

Preparedness Program

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Mission

The mission of the Preparedness Program is to protect the health of Utahns by enhancing preparedness, response, and recovery capabilities for public health emergencies at the Utah Department of Health by partnering with local health departments, hospitals, and other stakeholders.



Preparedness Program

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Goals and Objectives

Goal 1: Ensure Utah's public health system is prepared for emergencies by updating preparedness and response plans.

- Objective 1.1 By June 30, 2016, update the Department Emergency Operation Plan.
- Objective 1.2 Between 2015 and 2019, annually update, modify, and exercise the Continuity of Operations Plan, Infectious Disease Response Plan, and Risk Communication Plan.
- Objective 1.3 Receive a rating of "established" overall on the CDC biannual evaluation of Utah's Strategic National Stockpile (SNS) plan.

Goal 2: Improve coordination with preparedness partners.

- Objective 2.1 For the years 2015 and 2016, co-chair monthly ESF-8 catastrophic earthquake planning meetings with local, state, and federal partners.
- Objective 2.2 Work to achieve a 90% satisfaction response on an annual stakeholder survey to assess effective and open communication of bureau staff.
- ✧ Objective 2.3 Biannually review all local health department SNS plans. Provide feedback for improvement and coordination into the statewide plan.
- Objective 2.4 Between 2015 and 2019, engage 100% of health care coalition coordinators by conducting monthly calls and annual site visits.

Goal 3: Increase staff readiness to respond by participating in regular trainings, drills, and exercises.

- ✧ Objective 3.1 By June 30, 2017, conduct training related to CHEMPACK plan development/deployment with each local point of contact.
- Objective 3.2 Between 2015 and 2019, 90% of bureau staff with a key ICS role will participate in a minimum of three annual training events and/or exercises.
- Objective 3.3 Complete at least one annual SNS drill or exercise to identify and correct gaps in planning.

Goal 4: Refine the Department's emergency response logistics function.

- Objective 4.1 By June 30, 2016, establish a formal process for requesting assets from UDOH.
- Objective 4.2 Assess emergency response system functionality based on quarterly tests and user feedback. Make 100% of essential system enhancements within 90 days.
- Objective 4.3 Between 2015 and 2019, conduct an annual inventory of Department resources and make available to stakeholders.

✧ Indicates objectives to be accomplished at a regional level.